Tested Software Versions

<u>Windows:</u>

    Windows XP – PASSED

    Windows 7

        64 bit – PASSED

        32 bit – UNTESTED

    Windows 8 – PASSED

<u>ESRI:</u>

    ArcGIS 9.3 - PASSED

        SP1 - PASSED

        SP2 - PASSED

    ArcGIS 9.3.1 - PASSED

        SP1 - PASSED

        SP2 – PASSED

    ArcGIS 10.0 – FAILED – Geocoding issue found

        SP1 – PASSED

        SP2 – PASSED

        SP3 – PASSED

        SP4 – PASSED

        SP5 – PASSED

    ArcEngine 10.0 – FAILED – Geocoding issue found

        SP1 – PASSED

        SP2 – PASSED

        SP3 – PASSED

        SP4 – PASSED

        SP5 – PASSED

    ArcGIS 10.1 – PASSED – write-up below

        SP1 – PASSED

    ArcGIS 10.2 – PASSED

ArcGIS 10.1 Writeup

During the testing phase of ArcGIS 10.1, there were several issues that arose when running the quality checks. I first tested by running the address anomalies tool, then the MSAG tool, and lastly geocoding the ALI database. In order to test the tools, I upgraded the "Template.gdb" in the "ECD_Audit" folder to a 10.1 geodatabase and created a new, empty, 10.1 "TIPS_QualityChecks.gdb" in order to run the tools from.

When I first started, when running the address anomalies, the major issues revolved around the way the address locators were set up. The first address locator that I set up was on the "Hi" level with the "State" field being replaced with "ESN". Upon the first creation of the address locators, I would get an error message because the tool would not match any of the addresses when they geocoded. I found that there is a field in the address locator "Match without Zones" that needs to be labeled as "Yes" in order to work. Once I did this I was able to get a correct match rate on the address anomalies tool without any errors. I was able to set up all three locator levels of "Low", "Medium", and "Hi" with the settings described and would get the appropriate results each time.

When running the MSAG tool, I was then running into another error where I was getting no matches on the addresses created in the exploded MSAG. After looking at the address locator and the fields created in the exploded MSAG, the field in the exploded MSAG that gets geocoded is the "Addr" field. Looking at the properties in the address locator, in the "Input Fields", I moved all of the input fields for "Street" other than "Addr" to the bottom of the list and tried to gecode the addresses again at which time they geocoded. I then tried running the MSAG tool again at which time the tool ran correctly without error and created the proper output.

When geocoding the ALI database, as long as the address locators were set up the same as for the address anomalies and MSAG tool, I ran into no issues geocoding the ALI database.

There were also no complications when running the "Check Dir and Parity" and "Address Overlaps" tools as well.

Overall I was able to run the quality checks as normal without any major complications. There are still issues that are not completely related to ArcGIS 10.1 where MSAG's are not in the necessary format in order to get a result when running the MSAG test.

There is an occasional unexplained issue with locks placed on files that aren't actually locked. The lock will persist through deletion of the file and if a new file is created with the same name, the lock will apply to it as well. The only solution that I was able to identify was to change the name of the file to a new unique name.

There is a "memory leak" with ArcCatalog that will cause it to hang and crash when you close the program. It is corrected in the first service pack but there is a manual fix for the issue if you use 10.1. The following is from an ESRI community manage on the ESRI help forums:

Go to Start > Run, type in the command below and click ok:

%AppData%\ESRI\Desktop10.1\ArcToolbox

This should bring up the folder in Windows Explorer. How big is the ArcToolbox.dat file? If it is over several MB in size rename it to ArcToolboxOld.dat and try again.

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There is a bug at 10.1 that is causing specific geoprocessing results to duplicate everytime ArcCatalog is closed, and the results are saved to that file. After awhile it becomes too large and ArcCatalog is crashing. This is resolved at 10.1 sp1 which is due out later this month. Until that time if you go into ArcCatalog and from the Geoprocessing Menu open the Geoprocessing Options you can select under Results Management to Never save geoprocessing results. Otherwise if you start to experience this you can open the Results window from the Geoprocessing Menu and clear out all the past GP Results.

The locator setup, rare lock issue and ArcCatalog bug cover all the issues that have been encountered while using ArcGIS 10.1 to perform the tasks required of a district for the state of TN NextGen911 project.